

What is claimed is:

1. A one-phase microemulsion composition comprising;  
(A) a hydrophilic nonionic surfactant,  
(B) a lipophilic nonionic surfactant,  
(C) an oil component,  
(D) a water-miscible solvent that does not interdissolve with the oil component,  
and the critical micelle concentration (CMC) of the hydrophilic nonionic surfactant in the water-miscible solvent is higher than that of the hydrophilic nonionic surfactant in water, and  
(E) water.
2. The one-phase microemulsion composition according to claim 1, wherein the HLB of (A) the hydrophilic nonionic surfactant is not less than 13, and the HLB of (B) the lipophilic nonionic surfactant is not more than 6.
3. The one-phase microemulsion composition according to claim 1 or 2, wherein the blending amount of (C) the oil component is 10–40 % by mass.
4. The one-phase microemulsion composition according to any one of claim 1 to 3, wherein (C) the oil component is silicone oil.
5. The one-phase microemulsion composition according to claim 4, wherein (C) the oil component is one or more selected from the group consisting of decamethylcyclopentasiloxane, dimethylpolysiloxane, and methylphenylpolysiloxane.
6. The one-phase microemulsion composition according to any one of claim 1 to 5, wherein the blending amount of (D) the water-miscible solvent is not less than 5 % by mass.
7. The one-phase microemulsion composition according to any one of claim 1 to 6, wherein (D) the water-miscible solvent possesses less than four hydroxyl groups in the molecule.
8. The one-phase microemulsion composition according to claim 7, wherein

(D) the water-miscible solvent is one or more selected from the group consisting of polypropylene glycol/polyethylene glycol copolymer or its dimethyl ether, polyethylene glycol or its alkyl ethers, polyoxyalkylene dicarboxylic acid ester, 1,3-butylene glycol, dipropylene glycol, isoprene glycol, and glycerin.

9. A production method of a one-phase microemulsion composition, comprising;

a W/O emulsion preparation step in which a W/O (water-miscible solvent-in-oil type) emulsion is prepared by mixing and stirring (A) a hydrophilic nonionic surfactant, (B) a lipophilic nonionic surfactant, (C) an oil component, and (D) a water-miscible solvent that does not interdissolve with the oil component, and the critical micelle concentration (CMC) of the hydrophilic nonionic surfactant in the water-miscible solvent is higher than that of the hydrophilic nonionic surfactant in water; and

a phase inversion step to an O/W one-phase microemulsion by adding (E) water to the W/O emulsion.

10. An O/W ultrafine emulsion external formulation comprising;

(A) a hydrophilic nonionic surfactant,

(B) a lipophilic nonionic surfactant,

(C) an oil component,

(D) a water-miscible solvent that does not interdissolve with the oil component, and the critical micelle concentration (CMC) of the hydrophilic nonionic surfactant in the water-miscible solvent is higher than that of the hydrophilic nonionic surfactant in water, and

(E) water;

and in the O/W ultrafine emulsion external formulation, the particle size of the emulsified particles is 10–500 nm.

11. A production method of an O/W ultrafine emulsion external formulation comprising;

a W/O emulsion preparation step in which a W/O (water-miscible solvent-in-oil type) emulsion is prepared by mixing and stirring (A) a hydrophilic nonionic surfactant, (B) a lipophilic nonionic surfactant, (C) an oil component, and (D) a water-miscible solvent that does not interdissolve with the oil component, and the critical micelle concentration (CMC) of the hydrophilic nonionic surfactant in the water-miscible solvent is higher than that of the hydrophilic nonionic surfactant in water;

an O/W one-phase microemulsion preparation step in which an O/W one-phase microemulsion is prepared by inverting the W/O emulsion by adding (E) water; and

an O/W ultrafine emulsion preparation step in which an O/W ultrafine emulsion is prepared by adding the O/W one-phase microemulsion to (F) an aqueous formulation.

12. The production method of the O/W ultrafine emulsion external formulation according to claim 11, wherein the HLB of (A) the hydrophilic nonionic surfactant is not less than 13, and the HLB of (B) the lipophilic nonionic surfactant is not more than 6.

13. The production method of the O/W ultrafine emulsion external formulation according to claim 11 or 12, wherein the blending amount of (C) the oil component is 10–40 % by mass.

14. The production method of the O/W ultrafine emulsion external formulation according to any one of claim 11 to 13, wherein (C) the oil component is silicone oil.

15. The production method of the O/W ultrafine emulsion external formulation according to claim 14, wherein (C) the oil component is one or more selected from the group consisting of decamethylcyclopentasiloxane, dimethylpolysiloxane, and methylphenylpolysiloxane.

16. The production method of the O/W ultrafine emulsion external

formulation according to any one of claim 11 to 15, wherein the blending amount of (D) the water-miscible solvent is more than 5 % by mass.

17. The production method of the O/W ultrafine emulsion external formulation according to any one of claim 11 to 16, wherein (D) the water-miscible solvent possesses less than four hydroxyl groups in the molecule.

18. The production method of the O/W ultrafine emulsion external formulation according to claim 17, wherein (D) the water-miscible solvent is one or more selected from the group consisting of polypropylene glycol/polyethylene glycol copolymer or its dimethyl ether, polyethylene glycol or its alkyl ethers, polyoxyalkylene dicarboxylic acid ester, 1,3-butylene glycol, dipropylene glycol, isoprene glycol, and glycerin.